	#1		A	UTAH O	IL AND GAS (CONSERVATION (COMMISSIO	N 	
REMARKS:	WELL LOG	ELE	CTRIC LOGS	FILEX	WATER SAF	NDSLOCA	TION INSPECTE	D	SUB. REPORT/abd.
		····							
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TH	pu 1	O m	01-01-90	7					
DATE FILED		11-2-						 ·	
LAND: FEE &	PATENTED	STATE L	EASE NO.			PUBLIC LEASE NO.	IJ.	-05059-	C INDIAN
DRILLING APP	ROVED:	11-18	-87					•	
SPUDDED IN:		0.00							
COMPLETED(V.01-4	OPP	PUT TO PRO	DUCING:		-			
INITIAL PROD	UCTION:					-			
GRAVITY A.P.I.									
GOR:									
PRODUCING Z	ONES:								
TOTAL DEPTH	1:/				•				
WELL ELEVAT	IÓN:	`	0.6						
DATE ABANDO	\ /\ /	o-W							
FIELD:	SAN	ARROYO		-					
UNIT:	SAN	ARROYO							
COUNTY:	GRAN	ID				···			
WELL NO.	SAN	ARROYO	UNIT #39				AI	T #43-	019-31249
LOCATION	1807	7' FSL F	T. FROM (N) (S) LINE	1927	FWL.	FT. FROM (E) (W)		SW	1/4 - 1/4 SEC. 15
TWP.	RGE.	SEC.	OPERATOR			TWP.	RGE	SEC.	OPERATOR
		,		 	· · · · · · · · · · · · · · · · · · ·	165	25E	15	BIRCH CORPORATION

Form OGC-1a

STATE OF UTAH

SUBMIT IN 1 ... LICATE*

(Other in triggions on 2 1007 reversed de)

DEPARTMENT OF NATURAL RESERVED DIVISION OF OIL, GAS, AND MINING

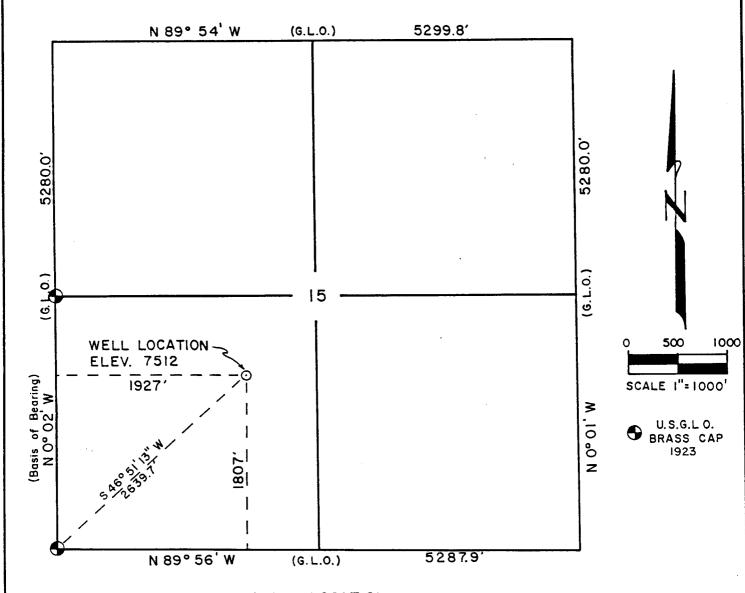
	or Dettoe Designation and
ไว้เปียง ซ ^{ูฟ}	U-05059-C

			อีกของเกิด		U-U5U59-	٠,
APPLICATION	FOR PERMIT TO	DRILL, DEEP	AN, FOR MINUS	BACK	6. If Indian, Allottee	or Tribe Name
Ia. Type of Work DRILL b. Type of Well	<u>(X)</u>	DEEPEN	PLUG	BACK []	7. Unit Agreement Na San Arro 8. Farm or Lease Na	yo
Oil Gas Well Wel 2. Name of Operator	Other Other		Single X Z	Zone	San Arro	
Birch Corpor	ation				9. Well No.	<u> </u>
3. Address of Operator	orida Avenue Su	ite 900 Denver	·, CO 80210		Unit #39	
4. Location of Well (Report At surface 8/7 1870 4/3/2 1 At proposed prod. zone	927' E/WE	cordance with any State	requirements.*)		San Arroyo	or Blk. ea
14. Distance in miles and d	irection from nearest town	or nost office*	h.		Sec. 15, 1	
	W of Mack. Colo				Grand	Utah
15. Distance from proposed location to nearest property or lease line, (Also to nearest drig, line)	rt. 440 i	16. N	io. of acres in lease		of acres assigned is well 320	
18. Distance from proposed to nearest well, drilling or applied for, on this l	location*		roposed depth 5800' g	20. Rotar	ry or cable tools Rotary	
21. Elevations (Show whether 7512 G			— UI		22. Approx. date w November	ork will start* 15, 1987
23.	P	ROPOSED CASING AN	D CEMENTING PROG	GRAM		
Size of Hole	Size of Casing	Weight per Foot	Setting Depth		Quantity of Cem	ent
12-1/4"	9-5/8"	36# K-55	350'		200 sx reg+2	
8-3/4 & 7-7/811	4-1/2"	11.6# K-55	6800'		300 cv 65/3	5 Pozmix or

We propose to enlarge the location on San Arroyo Unit #11, move in a drilling rig and drill a new 6800' test hole to adequately evaluate 400' of the Entrada Formation. This well is to be drilled as a twin well to the San Arroyo Unit #11.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

ductive zone. If proposal is to drill or deepen directionally, grapherenter program, if any. 24. Signed. John John John John John John John John		Operations Manager	Date 18/30/87
(This space for Federal or State office use) Permit No. 43-019-31249		APPROVED BY T	HE STATE SION OF
Approved by Conditions of approval, if any:	. Title	OIL, GAS, AND PATE: 11-18-8	MINING
		SPACING:	R415-2-3



WELL LOCATION

1807 FT.N.S.L. - 1927 FT.E.W.L. SECTION 15, T.16 S., R. 25 E., S.L.B. & M.

SURVEYOR'S CERTIFICATE

I, MICHAEL W. DRISSEL A ABOUSTERED LAND SURVEYOR IN THE STATE OF UTAH, DO HEREBY CERTIFIA WHAT THIS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT REPRESENTS SAID SURVEY.

NOV 02 1987

OIL, GAS & MINISON

MICHAEL W

MICHAEL W. DRISSEI

L.S. 6934

ENGINEERING - SURVEYING

Date 10-26-87

SAN
UN

Date 10 - 26 - 87

Drawn by SLH

Checked by MWD

Survey date 10 - 16 - 87

SURVEY date 10 - 16 - 87

SAN ARROYO

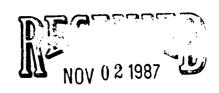
UNIT 39

Sheet 1 of 3

John 87025

777 engi	OR NO NO N	1 0 2 1987 Prospecti Well Nami		royo Unit #39	_ Lease #	J-05059
WELL PR	OGNOSISCIL, G	AS & MINING:	NET CHI	Sec. <u>1 5</u> 1927	Two 165 Bo	je. <u>25E</u>
() Wildcat (X) Development	Elevation	Gr7512.		Kb	·
GEOLOG	CAL REQUIREME	NTS '	Forma	tion Tops		Depth
SAMPLE PROGRAM - samples	350 .	to6800	· Mesa	tch verde		Surface 145'
Samples to Amstrat:	YesNo	xx	Mano Emer	legate os "A" y		2868' 3326'
Samples to other pa	rtners No		Niob	rara		3666' <u>.</u> 5422' <u> </u>
Deviation Limit 10	Not to exce	ed <u>1°/10</u> 0	Dako Ceda	ta r Mountain		5742' 5890'
LOGGING PROGRAM	· .	' to	I	ison ada		6007' 6383'
Dual Induction 350'		' to 6800'				6800'
BHC Acoustic ——CNL I BHC Density ——CNL I Laterolog 3	<u>Minimum</u>	to 6800'				
Microlaterolog		' to			<u> </u>	
Gamma Ray Neutron		' to				
CORING PROGRAM No	ne	· to	· Coow	ners and Participa	ants	
DST PROGRAMNo	ne					
Mud Logger Required: Y Type <u>24 hr. 480</u>	0'-6800'					
Geologist: From No	ne	· to				
HOLE SIZE		DRILLING PRO	GRAM	CASING PRO		
12½ ··· to	350 · 9 300 · 412	Si ze	Weight 36# K-55 11.6# K-55	Depth - # 350 6800	200	Cement DCSX reg +2% 0 65-35 Pozm
3/4 & 7 7/8. to to				#	/ W/ _	or RFC sa
		MUD PRO Depth	GRAM	Charact	eristics	
Туре	From	То	Wt.	Vis.	%Oil	W.L.
Water Air Air Mist Gel	350' 6300	350 6300 6800	8.3-8.5	35-39		8-10
	n nauu	1 0000				l

Geological



DRILLING PROGRAM BIRCH CORPORATION

DIVISION OF OIL, GAS & MINING

SAN ARROYO UNIT WELL NO. 39 SAN ARROYO FIELD GRAND COUNTY UTAH

1. SURFACE FORMATION AND ESTIMATED FORMATION TOPS:

Wasatch	Surface
Mesaverde	145'
Castlegate	2092
Mancos "A"	2868'
Emery	3326'
Niobrara	3666'
Ferron	5422'
Dakota Silt	5686!
Dakota	5742'
Cedar Mountain	58 9 0'
Morrison	6007'
Entrada	6383'

2. ESTIMATED DEPTH AT WHICH OIL, GAS, WATER, OR OTHER MINERAL-BEARING ZONES ARE EXPECTED:

Ferron Dakota Cedar Mountain	: 3666' 5422' 5742' 5890' 6007' 6383'	Potential Water Zone Dakota Silt Dakota Cedar Mountain Morrison Entrada	es: 5686, 5742, 5890, 6007, 6383,	
Potential Gas Zones Castlegate Mancos "A" Emery Niobrara Ferron Dakota Silt Dakota Cedar Mountain Morrison Entrada	2092' 2868' 3326' 3666' 5422' 5686' 5742' 5890' 6007' 6383'	Potential Mineral Z Mesaverde (coal) Dakota Silt (ura Dakota (uranium Morrison (uraniu Entrada (uraniu) anium)) um)	145' 5686' 5742' 6007' 6383'

3. PRESSURE CONTROL EQUIPMENT:

A diagram illustrating the pressure control equipment is attached. BOP equipment will consist of a flanged 10" series 900 hydraulically actuated double gate system complete with blind rams and $3\frac{1}{2}$ ", 4", or $4\frac{1}{2}$ " pipe rams. Remote controls for the system will be operational and hand wheels installed. BOP and the choke manifold will be installed afer running and cementing surface casing. This equipment will be used continuously until the well is abandoned or production casing run and cemented for completion. Surface casing, the blind rams, pipe rams and choke manifold will be pressure tested to 1000 psig prior to drilling the plug.

During drilling the operation of this equipment will be inspected daily and the pipe rams checked for operation. The blind rams will be closed every trip when the drill string has been removed. All inspections, operations, and tests of this equipment will be recorded on the daily drilling report.

The Moab BLM office will be notified twenty-four (24) hours in advance of any pressure tests.

Other auxiliary equipment will include a float at the bit, kelly cock and full opening pipe valve on the floor.

4. CASING PROGRAM AND AUXILIARY EQUIPMENT:

Surface casing will be new 9-5/8" OD 36#/ft. K-55 grade set from surface to 350 feet and cemented with 200 sacks of regular cement containing 2% calcium chloride and $\frac{1}{2}$ lb./sk. cellophane. Cement will be circulated to surface.

Production casing will be new $4-\frac{1}{2}$ " OD 11.6#/ft. K-55 grade set from surface to 6800 feet and cemented with 300 sacks 65/35 pozmix or RFC cement. This should fill approximately 1000 feet above Dakota top.

Well head equipment will be a 3000 psig working pressure bradenhead for the 8-5/8" surface casing. A flanged 3000 psig working pressure tubing spool will be used for a tubing head.

Note: A 8-3/4" bit will be used to drill the cement shoe of the surface casing and penetrate the Castlegate Formation. As soon as the bit is dull, a 7-7/8" bit will be used from this depth to total depth providing that shallow water production is not encountered. If shallow water is encountered, then consideration may be given to running an intermediate casing sting of 7" new 20#/ft K-55 casing. This string will be cemented with 100 sacks of regular cement and the hole finished with a 6-1/4" bit.

5. MUD PROGRAM AND CIRCULATING MEDIUM:

Water will be used to drill the 12-1/4" hole to 350 feet where surface casing will be set. Air or air-mist will be used to drill the 8-3/4-7-7/8" hole until sufficient gas flow or moisture is encountered requiring the use of a chemical gel mud.

6. CORING, TESTING, AND LOGGING PROGRAMS.

No cores or DST's are planned as these are development wells. Proposed logs are: Dual Induction Log - 350' - TD

BHC Density-Compensated Nuetron - Minimum 2000' at various intervals

7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURES AND POTENTIAL HAZARDS:

Maximum pressure anticipated is 1500 psig in the Entrada Formation and should not require more than normal mud weight for control. No abnormal temperatures or hydrogen sulphide are anticipated.

8. ANTICIPATED STARTING DATES AND NOTIFICATIONS OF OPERATIONS:

Anticipated starting date is November 15, 1987, and it expected that the duration of operations will be up to 120 days for drilling and completion.

The Operator will contact the Moab BLM Office at 801-259-6111, forty-eight hours prior to beginning any dirt work on this location.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are suspended prior approval of the District Manager will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the BLM Manager within a minimum of twenty-four (24) hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within twenty-four (24) hours after spudding. If the spudding occurs on a week-end or holiday, the written report will be submitted on the following regular work day.

In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 3160-6, "Monthly Report of Operations", starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report will be filed directly with the Bureau of Land Management, P. O. Box 970, Moab, Utah 84532.

IMMEDIATE REPORTS: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Moab BLM in accordance with requirements of NTL-3A.

If a replacement rig is contemplated for completion operations, a Sundry Notice (Form 3160-5) to that effect will be filed for prior approval of the District Manager, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergency situations, verbal approval to bring on a replacement rig will be approved by the District Petroleum Engineer.

Should the well be successfully completed for production, the District Manager will be notified when the well is placed in a producting status. Such notification will be sent by telegram or other written communications, not later that five (5) business days following the date on which the well is placed in production.

A first production conference will be scheduled within fifteen (15) days after receipt of the first production report. The Grand Resource Office will coordinate the field conference.

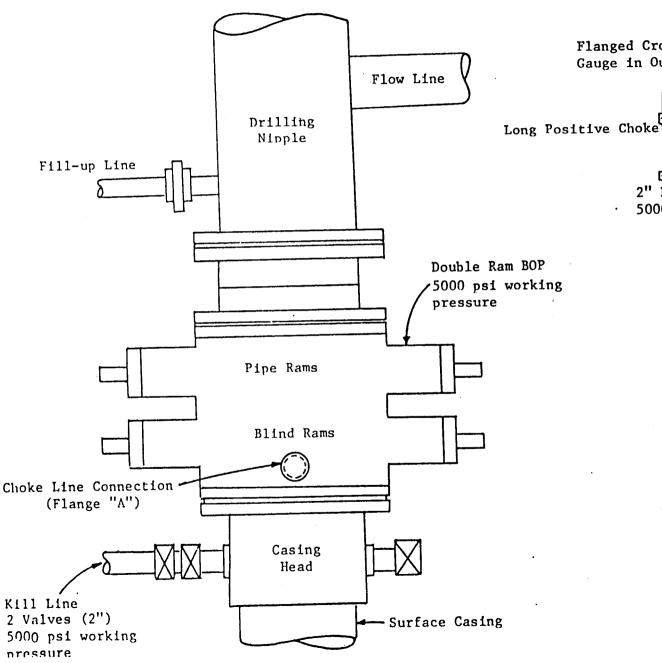
No well abandonment operations will be commenced without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Petroleum Engineer. A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the District Manager within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the BLM Area Manager or his representative, or the appropriate surface managing agency.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed thirty (30) days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guideline in NTL-4A.

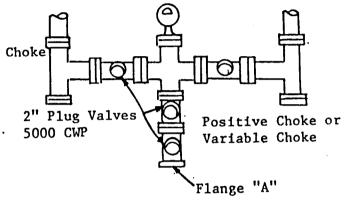
Upon completion of approved plugging, a marker 4" x 4' long will be erected in accordance with 43 CFR 3162.6. The marker will be constructed after contouring. The top of the marker will be closed or capped and the following minimum information will be permanently placed on the marker with a plate, cap, or beaded on with a welding torch:

"Fed" or "Ind" as applicable.
"Well number, location by 11 section, township, and range."

"Lease Number, county, and state."



Flanged Cross with Pressure Gauge in Outside Opening



Plan View-Choke Manifold

Testing Requirements

Pipe rams: Operated daily.
Blind rams: Operated and closed

every opportunity.

Accumulation: Checked daily.

Figure III

BLOW OUT PREVENTOR

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

BIRCH CORPORATION

SAN ARROYO UNIT WELL NO. 39

GRAND COUNTY, UTAH

1. EXISTING ROADS.

- A. The location is approximately 30.5 miles northwest of Mack, Colorado.
- B. The proposed route to the location is by traveling west on Hiway 6 & 50 approximately 8½ miles to the intersection of Hiway 6 & 50 and Mesa County Road No. 2. Turn north off Hiway 6 & 50 on 2 Road and proceed northwest. Go up Bitter Creek. At San Arroyo station go west up the hill approximately 1-1/2 miles. Before the top of the ridge, turn right and proceed north approximately 3/4 of one mile. The location is the same location as San Arroyo Unit #11. See Plat No. 1 and Plat No. 2.
- C. Plans for improvement and maintenance of existing roads: Hiway 6 & 50 west of Mack, Colorado is a two-lane paved road while Mesa County Road No. 2 and the road up to San Arroyo Ridge are in good shape. Because the location is the location of a producing well the access is in good shape. Should maintenance be required, the road will be flat graded.

2. PLANNED ACCESS ROADS.

- A. Plat No. 2 illustrates the access which is currently used to access San Arroyo Unit #11. No additional road construction is anticipated except moving the existing roadway to the northwest corner of the drill pad.
- B. Grades are less than 8%.
- C. Turnouts: None.
- D. The centerline of the road has not been flagged because the road is preexisting.
- E. Drainage: Pre-existing drainage control will be utilized.
- F. Surface Materials: No additional surface material is anticipated.
- G. Other: No Rights-Of-Way is required since this well is within the boundaries of the San Arroyo Unit.

Surface disturbance and vehicular travel will be limited to the approved location and access road. Any additional areas needed will be approved by the appropriate BLM Manager in advance.

The access road will be rehabilitated or brought to Resource (Class III) Road standards within sixty (60) days of dismantling of the drilling rig. If this time frame cannot be met, the BLM Manager will be notified so that temporary drainage control can be installed along the access road.

3. LOCATION OF EXISTING WELLS.

Plat No. 3 illustrates the location of all existing wells in a two mile radius: there are twenty-four(24) producing gas wells and five (5) dry holes.

4. LOCATION OF TANK BATTERIES AND PRODUCTION FACILITIES.

All permanent (onsite for six (6) months or longer) structures constructed or installed (including oil well pumpjacks) will be painted a flat, non-reflective, earth-tone color to match the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six (6) months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded. Colors will be Juniper Green.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager. Gas meter runs for each well will be located within five hundred (500) feet of the wellhead. The gas flowline will be buried from the wellhead to the meter along with any other sections occuring on the pad. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three (3) months on new meter installations and at least quarterly thereafter. The Area Manager will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration reports will be submitted to the Resource Area Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. LOCATION AND TYPE OF WATER SUPPLY.

All water needed for drilling and completion purposes will be obtained from West Salt Creek as shown by Plat No. 1. The point of divergence is located in Mesa County, Colorado. Water will be hauled to location by truck. A Utah water permit will not be necessary as water is being obtained from Colorado.

6. SOURCE OF CONSTRUCTION MATERIALS.

None.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3. Source of construction material will be located on lease.

METHOD OF HANDLING WASTE DISPOSAL.

The reserve pit will not be lined. Three sides of the reserve pit will be fenced before drilling starts and the fourth side will be fenced as soon as drilling is completed. The fence will consist of three strands of barbed wire and will be kept in good repair while the pit is drying.

7. METHOD OF HANDLING WASTE DISPOSAL Continued.

Produced waste water will be confied to the pit for a period not to exceed ninety (90) days after initial production. During the ninety (90) day period an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the BLM Manager's approval pursuant to Onshore Oil and Gas Order #3 (NTL-2B).

Plat No. 4 illustrates the rig layout and the position of the trash cage and reserve pit.

- A. Cuttings: These will be contained on location in the reserve pit.
- B. Drilling fluids, chemicals, and salts: These will be contained in the reserve pit.
- C. Sewage: Chemical toilets will be used.
- D. Garbage and other waste materials: A portable trash cage will be kept on location to contain these. Periodically the location will be cleaned and all trash placed in the container. No trash will be thrown in the reserve pit. The trash cage will be hauled to a sanitary landfill and emptied when it fills up. Barrels, cable, wood pallets, and all other trash will be hauled to a local sanitary landfill to be disposed of. Open burning of trash and refuse is illegal under Section 2.4 of the Utah Air Conservation Regulations. The Operator will be responsible for all trash and roadside litter generated by their operations along their access route from County Road to the location.
- E. If burning is required, a permit will be obtained from the State Fire Warden in Moab, Utah.

8. ANCILLIARY FACILITIES.

None.

9. WELLSITE LAYOUT.

Plat No. 4 shows the rig layout, Plat No. 5 shows the pad layout. Plat No. 6 illustrates the cuts and fills. The reserve pit is located on the cut side of the location.

The reserve pit will be located on the west side of the location and a burn pit will be constructed. Both pits will be connected by a small trench so that any accumulation of liquids in the burn pit will drain into the reserve pit. To contain any flare of natural gas, the back side of burn pit will be banked and this should help keep any material contained. The blouie line will be directed into the burn pit and water will be injected into the blouie line for fugitive dust control. The top twelve (12) inches of soil material will be removed from the location and stockpiled separately on the northeast side of the location.

The access road will enter on the north side of the location and the trash cage will be situated to the southwest of the location, as shown by Plat No. 4.

10. PLANS FOR RESTORATION OF SURFACE.

The Operator or his Contractor will contact the Grand Resource BLM Office in Moab, Utah, telephone 801-259-8193, forty-eight (48) hours prior to starting rehabilitation work that involves earth moving equipment and upon completion of restoration measures.

10. PLANS FOR RESTORATION OF SURFACE Continued.

Before any earthwork to restore the location takes place, the reserve pit will be dry and all trash (barrels, metals, etc.) it contains must be removed and disposed of in a sanitary landfill. And immediately upon completion of drilling, the location and surrounding areas will be cleared of all remaining debris, materials, trash and junk not required for production.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

Seed will be broadcast or drilled at a time specified by the BLM. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage.

The disturbed areas will be reseeded using a seed mixture as stipulated by the Grand Resource BLM Office in Moab, Utah. Seeding will be accomplished by using a range drill or by doubling the prescribed mixture and broadcasting.

11. PRODUCTION, SURFACE AND MINERAL OWNERSHIP.

If well goes to production, the holder shall submit a proposed operation and maintenance plan for the permanent road after consultation with the BLM authorized officer for applicable road standards.

The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed in the method described in the Resotration of Surface section.

All above ground production facilities will be painted with a flat non-contrasting color harmonious with the adjacent landscape, subject to the approval of the authorized officer.

Plat No. 7 shows the layout of the typical production facilities and sales line. The sales line will follow the alignment of the road and will be a surface line. The diameter of the sales line will be 2-3/8" tubing with screwed construction. The connections will be coated with an adequate joint compound such as "Baker-Lok" to prevent any leakage. The line will be placed either above the cuts on the high side of the road or it will be staked above the road along the cut slopes.

The surface and minerals are owned by the United States Government and lease number U-05059-C is described as follows:

Township 16 South, Range 25 East, Grand County, Utah.

Section 15: S½SW¼, NE¼SW¼
Containing 120± acres.

12. OTHER INFORMATION.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the BLM in Moab. Safe drilling and operating proactices must be observed. All wells, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.2.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.

A cultural resource clearance has been prepared. If culture material is exposed during construction work, work in that spot will stop immediately, and

12. OTHER INFORMATION Continued.

the Grand Resource Office will be contacted. All employees working in that area will be informed by the Operator that they will be subject to prosecution for disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will only be done if damage occurs.

The dirt contractor will be furnished with an approved copy of the surface use plan and any additional BLM stipulations prior to any work.

This permit will be valid for a period of one (1) year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION:

Representative:

Grand Junction, CO 81502 (Sandy Randall) (303)-245-1958

Operator:

Birch Corporation

Mr. Tony Hines

3801 E. Florida, Suite 900

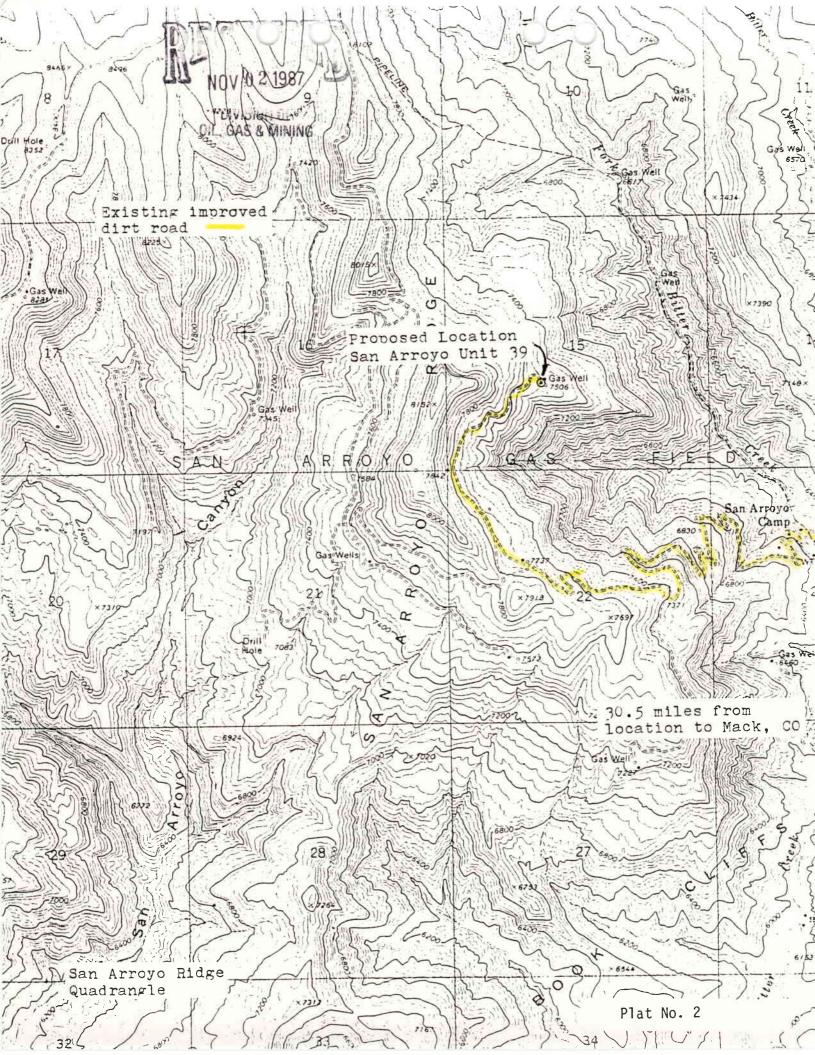
Denver, CO 80212 (303)-759-4400

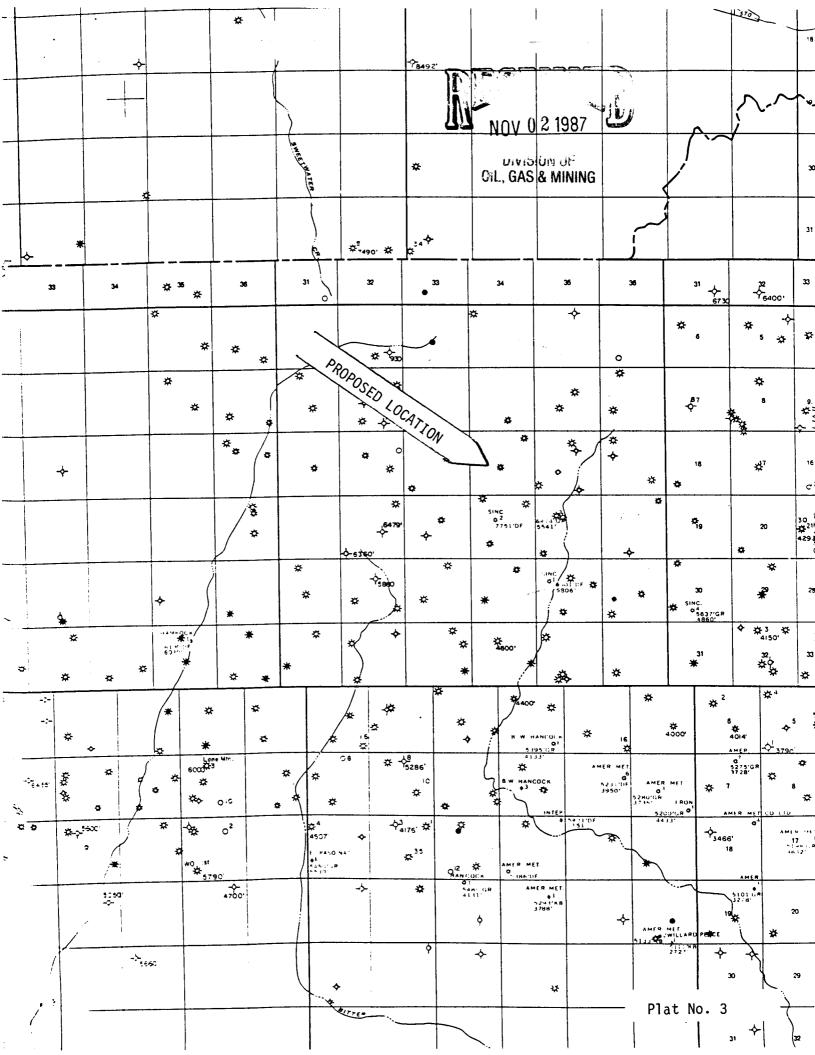
Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Birch Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

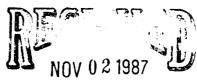
Tony Hines

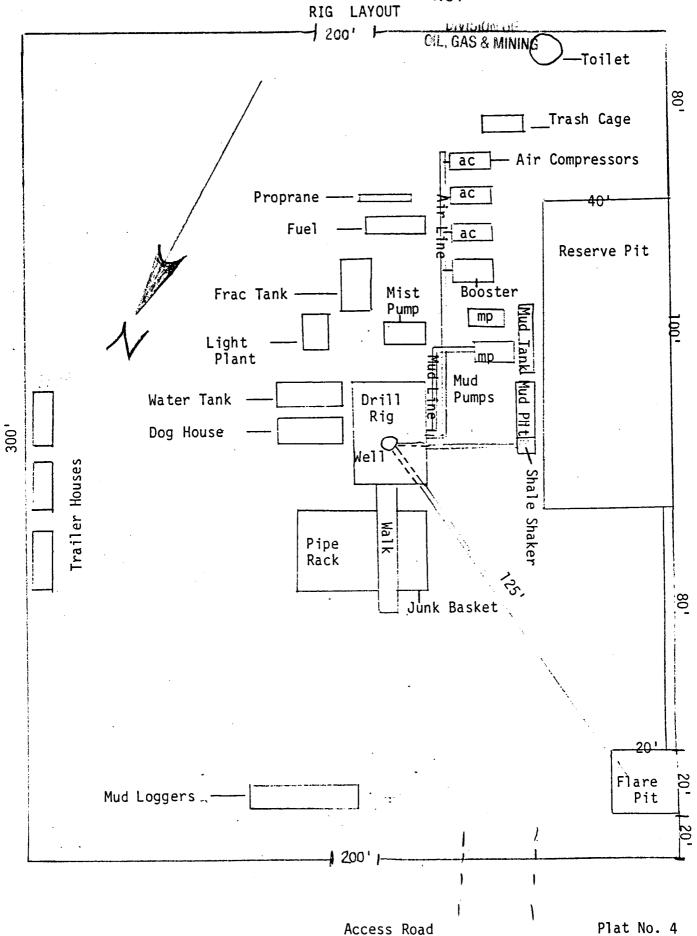
Operations Manager

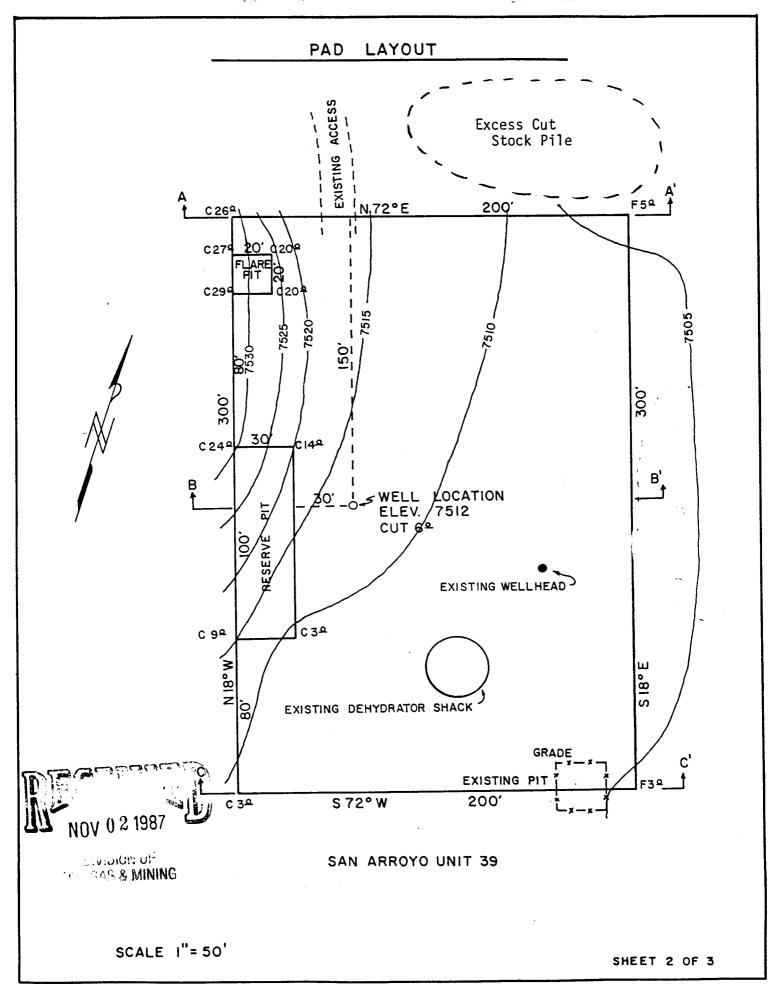






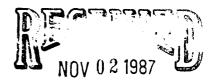






CROSS SECTIONS

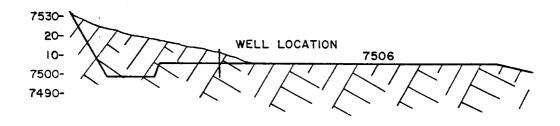
SECTION A-A'



DIVIDIUM OF CIL, GAS & MINING

7540-30-20-10-7500-

SECTION B-B'

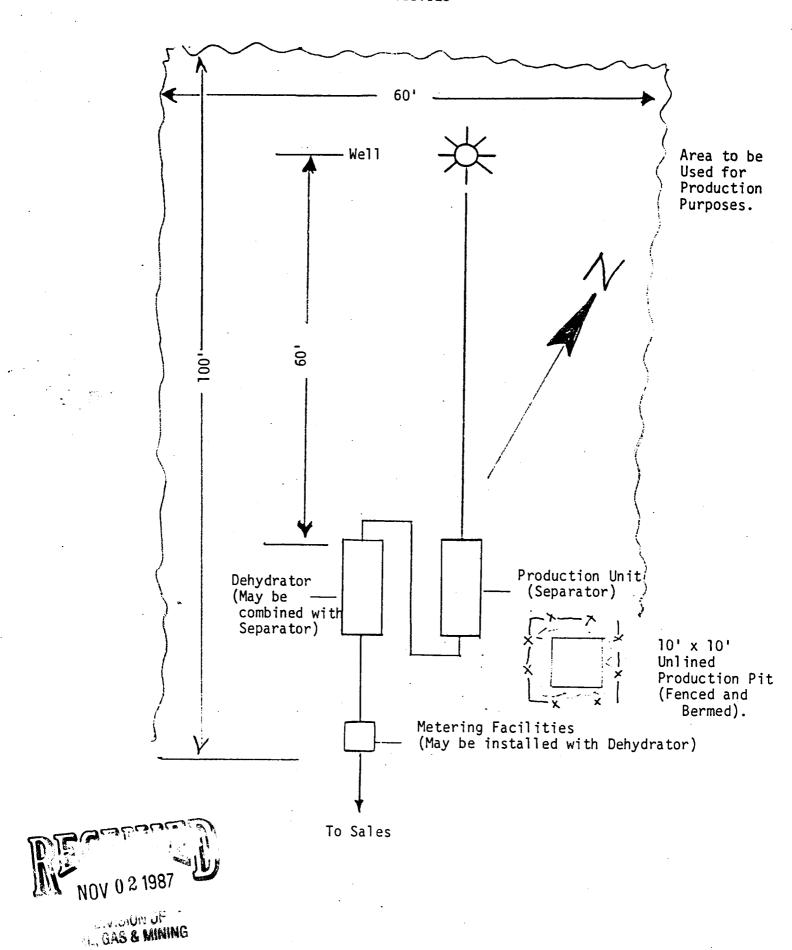


SECTION C-C'

7520-10-7500-7490-

SCALE 1"= 50' HORIZ. & VERT.

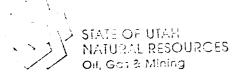
SHEET 3 OF 3



Plat No. 7.

111911

OPERATOR Beind Cons	DATE 11-4.87
WELL NAME San Clarroyo Tinit #39	
SEC NE SW15 T 165 R 256 COUN	ITY Grand
43-019-31249 API NUMBER TY	FEL PE OF LEASE
CHECK OFF:	
PLAT	NEAREST WELL
LEASE	POTASH OR OIL SHALE
PROCESSING COMMENTS:	
Water - Colorado	
-	
APPROVAL LETTER:	
SPACING: R615-2-3 San lungo UNIT	R615-3-2
CAUSE NO. & DATE	R615-3-3
STIPULATIONS:	
	,



185 % North Temple • 3 Triad Center • Suite 350 • Soit Lake City, UT 84180-1203 • 301-538-5340

November 18, 1987

Birch Corporation 3801 E. Florida Avenue, Suite 900 Denver, Colorado 80210

Gentlemen:

Re: San Arroyo Unit #39 - NE SW Sec. 15, T. 16S, R. 25E 1807' FSL, 1927' FWL - Grand County, Utah

Approval to drill the referenced well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule R615-2-3, Oil and Gas Conservation General Rules.

In addition, the following actions are necessary to fully comply with this approval:

- Spudding notification to the Division within 24 hours after drilling operations commence.
- 2. Submittal of an Entity Action Form to the Division within five working days of the time that the well is spudded or a change in operations or interests necessitates a change in entity status.
- 3. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
- 4. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.
- Compliance with the requirements of Rule R615-3-22, Gas Flaring or Venting, Oil and Gas Conservation General Rules.

Fage 2 Eirch Corporation San Arroyo Unit #39 November 18, 1987

- 6. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at the drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 538-6121.
- 7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-019-31249.

Sincerely,

R. -3. Firth

Associate Director, Oil & Gas

is Enclosures

cc: Branch of Fluid Minerals

D. R. Nielson

3159T

State of Utah
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center Suite 350

Salt Lake City, Utah 84180-1203



P.O. BOX 3525 GRAND JUNCTION, CO 81502 (303) 245-1958

SUBJECT Birch Corporation, San Arroyo Unit #39	DATE 11 / 18 / 87
MESSAGE	<u> </u>
Attn: Arlene	
X Arlene - per our telephone conversation today, attached is a	Sundry Notice
changing the footage from the south line on San Arroyo Unit	#39. Please change
the state application for permit to drill to reflect this ch	ange.
Thanks	· · · · · · · · · · · · · · · · · · ·
signed Sandy te	avy
REPLY	
	The state of the s
SIGNED	DATE / /

SEND PARTS 1 AND 2 - PART 2 WILL BE RETURNED WITH REPLY

				Form approved. Budget Bureau No. 1004-0135
ਡਾਂ∍ਗ∺3160-5 (November 1983)	UN! "D STA	TES :	SUBMIT IN TRIPI TE° (Other instruction: re-	Expires August 31 1985
(Formerly 9-331)	BUREAU OF LAND MA		verse nde)	U-059059-C DJA
			45110	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
SUN (Do not use this	IDRY NOTICES AND R form for proposals to drill or to d Use "APPLICATION FOR PERMI	EPORIS ON cepen or plug back to T—" for such proposals	WELLS a different reservoir.	<u> </u>
ī.	_			W. UNIT AGREEMENT NAME
WELL GAS WELL	OTHER	Ĭ.	<u>.</u>	San Arroyo
2. NAME OF OPERATOR BIRCH CORPO	DATION	177	NOV 27 1987	
3. ADDRESS OF OPERATOR			MAA 1 1201	San Arroyo 9. WELL NO.
3801 EAST F	LORIDA AVENUE SUITE 9	OO DENVER, CO	80210	Unit #39
4. LOCATION OF WELL (F See also space 17 belo	Report location clearly and in accord	lance with any State	CAL CAR WINING	10. FIELD AND POOL, OR WILDCAT
At surface	FSL, 1927' FWL			San Arroyo
				SURVEY OR AREA
				Sec 15, T16S, R25E
14. PERMIT NO.	15. BLEVATIONS (Show whether DF, RT, GR	etc.)	12. COUNTY OR PARISH 18. STATE
43.019	.31849 751	2'GR		Grand Utah
16.	Check Appropriate Box T	o Indicate Nature	of Notice, Report, or C	Other Data
:	NOTICE OF INTENTION TO:	1	· · · · ·	UBNT REPORT OF:
TEST WATER SHUT-O	PELL OR ALTER CAS	ING TO	WATER SHUT-OFF	REPAIRING WELL
FRACTURE TREAT	MULTIPLE COMPLETI		FRACTURE TREATMENT	ALTERING CASING
SHOOT OR ACIDIZE	ABANDON*		SHOOTING OR ACIDIZING	ABANDONMENT*
REPAIR WELL	CHANGE PLANS		(Other) Transmit II	s of multiple completion on Well
(Other)	n could be the open and a could be	ente all portingut data	Completion or Recomp	pletion Report and Log form.) , including estimated date of starting an
proposed work. If nent to this work.)	well is directionally drilled, give	subsurface locations a	is, and give pertinent dates and measured and true vertic	cal depths for all markers and zones perti
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		!	A. A. C. Sagar	
This Sundr	y Notice to is correct	t information	submitted on our	r Application for Permit
to Drill r	ecently submitted. Fy reported as being l	Riedse note tr	of the location of the characteristics of the location of the characteristics of the characteristics of the location of the lo	ould be corrected to
read 1807	' FSL, 1927' FWL. Pl	ease make all	appropriate char	nges.
			•	
18. I hereby certify that	the foregoing is true and correct			
arcema Jan		TITLE Operat	tions Manager	DATE 11/23/87
SIGNED	7	TILLE JPC. U		- VA. 10
(This space for Fede	eral or State office use)			
APPROVED BY	PPROVAL, IF ANY:	TITLE		DATE

*See Instructions on Reverse Side

Form 3160-3 (November 1983) (formerly 9-331C)

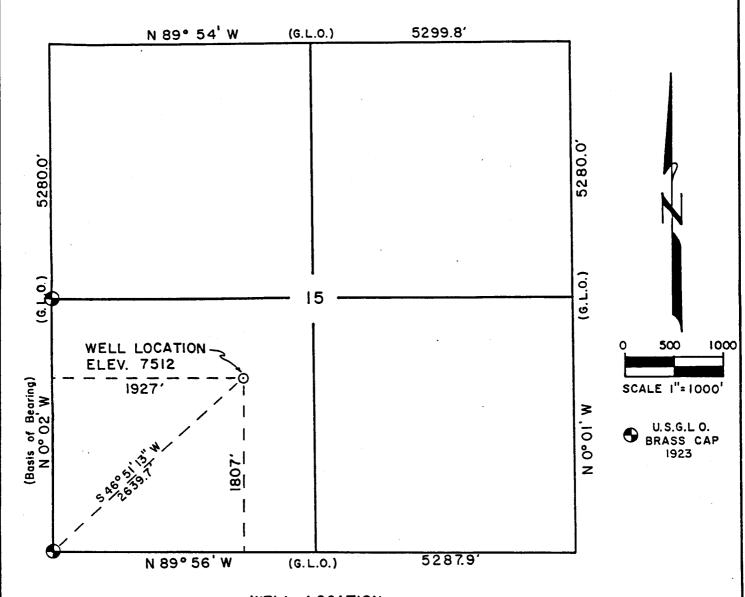
Form approved. Budget Bureau No. 1004-0136 Expires August 31, 1985

	DEPARTMENT	r of the i	BEFN	PORny 2	3 1987		5. LEASE DESIGNATION	AND SERIAL NO.
	 BUREAU OF 	LAND MANA	SEMEN	Т 1101			U-050590C	28
APPLICATION	FOR PERMIT	TO DRILL, I	DEEPE	N. OR P	PAR B	ACK	6. IF INDIAN, ALLOTT	B OF TEIBE NAME
la. TYPE OF WORK				CAL, UAS	& MININ	3	7. UNIT AGREEMENT N	
	LL 🛚	DEEPEN (]	PLU	JG BAC	:K ∐	San Arroyc	
b. TYPE OF WELL	us তো		SU	NGLE IV	MULTIPI	—	8. FARM OR LEASE NA	
WELL W	ELL X OTHER		ZO		ZONE	<u> </u>	San Arroyo	
Birch Corpor	ration						9. WELL NO.	,
3. ADDRESS OF OPERATOR	401011			·			Unit #39	
	lorida Avenue S						10. FIELD AND POOL,	OR WILDCAT
4. LOCATION OF WELL (Re	eport location clearly and	in accordance wit	h any S	tate requiremen	its.*)		San Arroyo)
1870' N/S 1	927' E/W						11. SEC., T., R., M., OR AND SURVEY OR A	BLK. REA
At proposed prod. zon	e .						Sec 15, T1	6S, R25E
14. DISTANCE IN MILES	AND DIRECTION FROM NEA	REST TOWN OR POS	T OFFICE	•			12. COUNTY OR PARISE	1 13. STATE
30.5 miles M	W of Mack, Col	orado					Grand	Utah
15. DISTANCE FROM PROPULOCATION TO NEAREST	SED*		16. NO	OF ACRES IN	LEASE		F ACRES ASSIGNED HIS WELL	
PROPERTY OR LEASE L (Also to nearest drig	INE, FT.	440'	120				320	
18. DISTANCE FROM PROP TO NEAREST WELL, DI OR APPLIED FOR, ON THE	OSED LOCATION* RILLING, COMPLETED,	100'					et or cable tools otary	
21. ELEVATIONS (Show who	ther DF, RT, GR, etc.)		!			<u></u>	22. APPROX. DATE W	ORK WILL START
7512' GR	· •						November 15	, 1987
23.	1	PROPOSED CASI	NG AND	CEMENTING	PROGRA	М		
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER F	00T	SETTING DI	EPTH		QUANTITY OF CEME	NT
12-1/4"	9-5/8"	36# K-55			KMV		reg+2% CaCl2	
8-3/4 & 7-7/8"	4-1/2"	11.6# K-55		6800'		<u>300 sx</u>	65/35 Pozmix	or RFC
	•							
	l	1	•			l		
Ua muana	ose to enlarge	the leastic	n on	San Annou	o Unit	#11	move in a dril	lina
we propo	drill a new 680	On! test ho	n on le to	adequate	o onic	·πιι, Juate	400' of the Fr	itrada
Formatio	on. This well	is to be dr	illed	as a twi	n well	to th	e San Arrovo l	Init #11.
TOTINGET	M. IIIIS WEIT	13 CO DC GI	11100	as a cm	ii we i i	CO 011	ic buil miloyo	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive sone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any. 24. Operations Manager SIGNED (This space for F PERMIT NO NOV 18 1987 APPROVED BY CONDITIONS OF APPROVAL, IF ANY: FLARING OR VENTING OF CONDITIONS OF APPROVAL ATTACHED

*See Instructions On Reverse Side

GAS IS SUBJECT OF NTL 4-A **DATED 1/1/80**



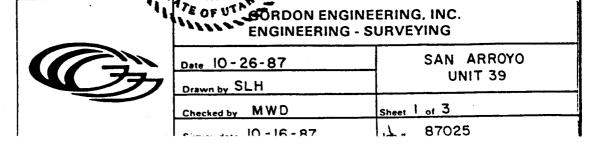
WELL LOCATION

1807 FT.N.S.L. - 1927 FT.E.W.L. SECTION 15, T.16 S., R. 25 E., S.L.B. & M.

SURVEYOR'S CERTIFICATE

I, MICHAEL W. DRISSEL CARRISTERED LAND SURVEYOR IN THE STATE OF UTAH, DO HEREBY CERTIFICATIONS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT REPRESENTS SAID SURVEY.

MICHAEL W. DRISSEL L.S. 6934



Birch Corporation Well No. San Arroyo Unit 39 Sec. 15, T. 16 S., R. 25 E. Grand County, Utah Lease U-05059-C

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

A. DRILLING PROGRAM

B.O.P.E. will be consistent with API RP 53.

B. SURFACE USE PROGRAM

If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to the appropriate rental, or other financial obligation determined by the authorized officer.

Because of difficult terrains, special recontouring techniques may have to be designed in order to facilitate vegetation and/or visual impacts.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

The following seed mixture will be used:

Species	lbs/acre
Grasses	
Western wheatgrass Smooth brometgrass Intermediate or pubescent whestgrass	3 3 3
Shrubs	
Fourwing saltbrush Prostrate kochia (summer cypress)	3 2 14 lbs/ac

Broadcast seed will be applied at double the above rate.

Final location release will be issued when the seeding is shown to be successful (when perennial vegetation is established).

NOTIFICATIONS

Notify the Grand Resource Area, at (801) 259-8193 for the following:

- 2 days prior to commencement of dirt work, construction or reclamation;
- 1 day prior to spudding;
- 1 day prior to pressure testing of BOPE and/or surface casing.

Your contact with the Grand Resource Area Office is:

Jeff Robbins

Office Phone (801) 259-8193

Home Phone

(801) 259-7964

Grand Resource Area office address:

Grand Resource Area Sand Flats Road, P.O. Box M Moab, Utah 84532

Notify the Moab District Office, Branch of Fluid Minerals, at (801) 259-6111 for the following:

No well abandonment operations will be commenced without the prior approval of the District Manager. In the case of newly drilled dry holes, and in emergency situations, verbal approval can be obtained by calling the following individuals, in the order listed.

Steven Jones, Petroleum Engineer

Office Phone: (801) 259-6111

Home Phone: (801) 259-7404

Lynn Jackson, Chief, Branch of Fluid Minerals

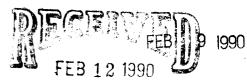
Office Phone (801) 259-6111 Home Phone (801) 259-7990

Paul Brown, I&E Coordinator

Office Phone (801) 259-6111 Home Phone (801) 259-7018

24 hours advance notice is required for all abandonments.

Moab District P. O. Box 970 Moab, Utah 84532



OIL SAS & STREET

Birch Corporation 3801 East Florida Avenue, Suite 900 Denver, Colorado 80210

Re: Rescinding Application for Permit to Brill No. San Arroyo Unit #39
NESW Sec. 15, T. 16 S., R. 25 E.
Grand County, Utah
U-05059-C

Gentlemen:

The Application for Permit to Drill the referenced well was approved on November 18, 1987. Since that date, no known activity has transpired.

This approval was valid for a period of one year from the date of approval. In view of the foregoing, this office is rescinding the approval of the referenced application.

Should you intend to drill at this location at a future date, a new application for permit to drill must be submitted.

If you have any questions, please contact the Branch of Fluid Minerals at (801) 259-6111.

Sincerely yours,

A. Lynn Jackson Acting.
Assistant District Manager
Division of Mineral Resources

Enclosure: Application for Permit to Drill -19>7

cc: GRA (w/o encl.)

State of Utah, Division of Oil, Gas & Mining (w/encl.) V

bcc: USO, U-942 (w/o encl.)

Vautts:vb:2/8/89

Form 3160-3 (November 1983) (formerly 9-331C)

UNITED STATES (Other instruction reverse side reverse side

SUBMIT IN TRITLICATE*

(Other instructions on reverse side)

Form approved. Budget Bureau No. 1004-0136 Expires August 31, 1985

(formerly 9-331C)	DEPARTMENT	OF THE I	NTER	IOR	ľ	5. LEASE DESIGNATION	AND REBIAL NO.	
BUREAU OF LAND MANAGEMENT					U-05059-C			
APPLICATION				N, OR PLUG B	<u>A</u> CK	6. IF INDIAN, ALLOTTEE	OR TRIBE NAME	
DRILL X DEEPEN PLUG BACK					7. UNIT AGESEMENT NAME San Arroyo			
OIL GAS WELL X OTHER ZOFE BX 2 195 NE					8. FARM OR LEASE NAME San Arroyo			
Birch Corpor	ation					9. WELL NO.		
3. ADDRESS OF OPERATOR			U.	المالة الإلاية والمسادرة		Unit #39		
3801 East F1	orida Avenue S	uite 900 De	nver,	CO 80210		10. FIBLD AND POOL, OR WILDCAT		
4. LOCATION OF WELL (Re	port location clearly and	i in accordance wit	th any St	ate requirements.")		San Arroyo		
1807'1870' N/S 1	927' E/W					11. SEC., T., E., M., OR BLK. AND SURVEY OR AREA		
At proposed prod. zone APT # 13-019-31 2NO						Sec 15, T16S, R25E		
14. DISTANCE IN MILES A	ND DIRECTION FROM NEA	REST TOWN OR POS	T OFFICE	. •		12. COUNTY OR PARISH		
30.5 miles N	W of Mack, Col	orado				Grand	Utah	
13. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)						OF ACRES ASSIGNED THIS WELL 320		
(Also to nearest drig. unit line, it any) 18. DISTANCE FROM FROFOSED LOCATION® TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.				6800		Rotary		
21. ELEVATIONS (Show whe	ther DF, RT, GR, etc.)					22. APPROX. DATE WO	RE WILL START	
7512' GR					November 15, 1987			
23.	1	PROPOSED CASI	NG AND	CEMENTING PROGRA	M			
SIZE OF HOLE	SIZE OF CABING	WEIGHT PER F	OOT SETTING DEPTH		QUANTITY OF CEMENT			
12-1/4"	9-5/8"	36# K-55		350' KmV	200 sx	00 sx reg+2% CaC12		
8-3/4 & 7-7/8"	4-1/2"	11.6# K-55		6800'	300 sx	65/35 Pozmix	or RFC	

We propose to enlarge the location on San Arroyo Unit #11, move in a drilling rig and drill a new 6800' test hole to adequately evaluate 400' of the Entrada Formation. This well is to be drilled as a twin well to the San Arroyo Unit #11.

			•	OIL AN		
					RJF	
			***	dád	GLH	
				,	SLS	
		•	t	-TAS		
BOVE SPACE DESCRIBE PROPOSED PROGRAM: If populations is to drill or deepen directions	proposal is to deepen	or plug back, give da	ta on present	productive	sone and prop	osed new prodepths. Give bl
enter program, if any.	tny, give pertinent da					
1 1		Operations	Manage	MICRO	- 14	30/82
BIGNED COMY TO	TITLE	operacions	Plattaget	FI		
(This space for Federal or State office use)	7	APPEGVAL DATE	1			
PERMIT NO.		district	Man	y u	DATE //	118/81
CONDITIONS OF APPROVAL, IF ANY:	TITLE .	July 200 p. 2 . 5	/	ZI A 19	T SO SMI	TOF NTL 4
an Illian CONDITIONS	AT / PDQAY //	AL ATTACHE	0	- ೯೩೬೪ ೧೩೭೩	Seurieo	TOF WILL
RA Malei CONDITIONS	OF ASTERNOVA	CONTRACTOR STATES	· Sar	* *** ***	DATED 1	1/1/80
• • • •	*See Instruction	one On Reverse S	ide			

"See Instructions On Reverse Side

Division of Oil, Gas and Mining PHONE CONVERSATION DOCUMENTATION FORM

[]	Well File Gahan San Arraya Unit 239 (Location) Sec 15 Twp 16, Rng 25e (API No.) 43019 31249	[] Suspense (Return Date) (To - Initials)	[] Other
1.	Date of Phone Call:	Time: _/	130 km
2.	DOGM Employee (name) ChR, Talked to:	is Kierst	(Initiated Call [/])
	Name Dale Manchesty of (Company/Organization)		
3.	Topic of Conversation: 43 019	31249-isi	+ LA?
4.	Highlights of Conversation: 3/3	249 is an LA	
			•

STATE OF UTAH OLISION OF OIL, GAS AND MINING OIL AND GAS INSPECTION RECORD

Or1..

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OPERATOR	Buch	Car	N		LEASE		
WELL NO.	Aan	ans	so Chart	39	API <u>43</u> -	-019-3	1249
SEC. 10	T. 165 R	.256	CONTRACTOR _				
COUNTY	Color	zl	FIELO		•		
·		The second second					
	COMPLETION/WO	RKOVER:				•	
	PD AFETY		WELL SIGN POLL. CONTROL		HOUSEKEEPING SURFACE USE		9CPE PITS
	PERATIONS		OTHER				
SHUT-IN _	/ TA	_ :					
	ELL SIGN THER		HOUSEKEEPING	***********	EQUIPMENT*		SAFETY
							
CEMPOUNABA M	: IARKER		HOUSEKEEPING		RSHAB.		OTHER
PRODUCTIO	:M•		•		•		
y _t	ELL SIGN		HOUSEKEEPING		EQUIPMENT*		FACILITIES*
	ETERING* ECURITY		POLL. CONTROL SAFETY	-,	PITS OTHER		DISTORAL
GAS DISPO					-		
	ENTED/FLARED		SCLD		LEASE USE		
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REMARKS:							
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ACTION:				· · · · · · · · · · · · · · · · · · ·			
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INSPECTO	2 •			Ì	7M	DATE 10	12-88
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State of Utah department of natural resources division of oil, gas and mining

Dee C. Hansen Sxecutive Director . Nielson, Ph.D. Division Director Both Street Physics of the Control of the C

February 21, 1990

Birch Corporation 3801 East Florida Avenue, Suite 900 Denver, Colorado 80210

Gentlemen:

Re: San Arroyo Unit #39, Sec. 15, T. 16S, R. 25E, Grand County, Utah

API No. 43-019-31249

In concert with action taken by the U.S. Bureau of Land Management, approval to drill the above referenced well is hereby rescinded. A new Application for Permit to Drill must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely

Don T. Staley

Administrative Supervisor

on T. Stely

Oil and Gas

TAS/Idc

CC:

D.R. Nielson

R.J. Firth

BLM - Moab

Well file

HOI2/19